IN THE CLAIMS:

Please amend the Claims as follows:

1. (Currently Amended) An EPOa-hSA fusion protein, wherein the EPOa moiety is the full coding region of the human EPO sequence but wherein at least one amino acid residue of the EPOa moiety of the fusion protein is altered such that a site which serves as a site for glycosylation in EPO does not serve as a site for glycosylation in the EPOa[.]; and,

wherein the EPOa moiety of the fusion protein is derived from a human sequence.

2. (Currently Amended) The EPOa-hSA fusion protein of claim 1, wherein said fusion protein has the formula:

R1-L-R2; R2-L-Rl; orRl-L-R2-L-R1,

wherein R1 is an erythropoietin analog amino acid sequence; L is a peptide linker and R2 is a human serum albumin amino acid sequence.

3. (Original) The EPOa-hSA fusion protein of claim 2, wherein R1 and R2 are covalently linked via said peptide linker.

4. (Original) The EPOa-hSA fusion protein of claim 1, wherein an amino acid residue which serves as an attachment point for glycosylation has been deleted.

5. (Original) The EPOa-hSA fusion protein of claim 1, wherein an amino acid residue of human EPO which serves as a site for glycosylation has been replaced with an amino acid residue which does not serve as a site for glycosylation.

6. (Original) The EPOa-hSA fusion protein of claim 1, wherein said amino acid residue is selected from the group consisting of amino acid residues Asn24, Asn38, Asn83 and Ser126.

7. (Original) The EPOa-hSA fusion protein of claim 1, wherein said glycosylation site is altered at amino acid residue Ser126 and at least one additional N-linked glycosylation site selected from the group consisting of Asn24, Asn38 and Asn83 is altered.

8. (Original) The EPOa-hSA fusion protein of claim 1, wherein said glycosylation site provides for N-linked glycosylation and is altered by replacing an amino acid residue Asn with Gln.

9. (Original) The EPOa-hSA fusion protein of claim 1, wherein said glycosylation site provides for O-linked glycosylation and is altered by replacing an amino acid residue Ser with Gln.

10. (Original) The EPOa-hSA fusion protein of claim 1, wherein one or more of amino acid residues 24, 38, or 83 has been altered.

11. (Original) The EPOa-hSA fusion protein of claim 10, wherein one or more of amino acid residues 24, 38, or 83 has been replaced with Gln.

12. (Original) The EPOa-hSA fusion protein of claim 1, wherein amino acid residue 126 has been altered.

13. (Original) The EPOa-hSA fusion protein of claim 12, wherein said amino acid residue 126 has been replaced with Ala.

14. (Original) The EPOa-hSA fusion protein of claim 1, wherein each of amino acid residues 24, 38, 83 and 126 has been altered such that it does not serve as a glycosylation site.

15. (Original) The EPOa-hSA fusion protein of claim 14, wherein each of said amino acid residues 24, 28, 83 and 126 has been replaced with Gln, Gln, Gln, and Ala respectively.

16. (Original) The EPOa-hSA fusion protein of claim 3, wherein said peptide linker is 10 to 30 amino acids in length.

17. (Original) The EPOa-hSA fusion protein of claim 16, wherein each of said amino acids in said peptide linker is selected from the group consisting of Gly, Ser, Asn, Thr and Ala.

18. (Currently Amended) The EPOa-hSA fusion protein of claim 3, wherein said peptide linker includes a sequence having the formula (Ser-Ser-Ser-Ser-Gly)y (SEQ ID 4) is less than or equal to 8.

19. (Currently Amended) The EPOa-hSA fusion protein of claim 3, wherein said peptide linker includes a sequence having the formula $((Ser\text{-}Ser\text{-}Ser\text{-}Ser\text{-}Gly)_3\text{-}Ser\text{-}Pro$ (SEQ ID 4).

20. (Original) The EPOa-hSA fusion protein of claim 1, wherein the EPOa is Gln24, Gln38, Gln83, Ala126 EPO.

21. (Original) The EPOa-hSA fusion protein of claim 1, wherein the fusion protein includes from left to right, an EPOa which includes amino acid residues Gln24, Gln38, Gln83 and Alal26, a peptide linker, and human serum albumin.

22. (Original) The EPOa-hSA fusion protein of claim 21, wherein the EPOa is Gln24, Gln38, Gln83, Alal26 EPO.

23. (Currently Amended) The EPOa-hSA fusion protein of claim 1, wherein the fusion protein is from left to right, Gln24, Gln38, Gln83, Ala126 EPO, a peptide linker having the formula $((Ser\text{-}Gly\text{-}Gly\text{-}Gly\text{-}Gly)_4\text{-}Ser\text{-}Pro)$ (SEQ ID 3) and human serum albumin.

24. (Currently Amended) The EPOa-hSA fusion protein of claim 1, wherein the EPOa-hSA fusion protein includes, from left to right, human serum albumin, a peptide linker, and an EPOa which includes amino acid residues Gln24, Gln38, Gln83 and Ala126.

25. (Original) The EPOa-hSA fusion protein of claim 24, wherein the EPOa is Gln24, Gln38, Gln83, Ala126 EPO.

26. (Currently Amended) The EPOa-hSA fusion protein of claim 1, wherein the fusion protein is from left to right, human serum albumin, a peptide linker having the formula $((Ser\text{-}Gly\text{-}Gly\text{-}Gly\text{-}Gly)_4\text{-}Ser\text{-}Pro)$ (SEQ ID 3), and Gln24, Gln38, Gln83, Ala126 EPO.

27-45. Cancelled

46. (Currently Amended) A pharmaceutical composition having a therapeutically effective amount of an EPOa-hSA fusion protein of claim 3.

47. (Currently Amended) A method of treating a subject in need of erythropoietin comprising administering a therapeutically effective amount of an EPOa-hSA fusion protein of claim 1 to the subject.

48. (New) An EPOa-hSA fusion protein, wherein the EPOa moiety is the full coding region of the human EPO sequence but wherein each amino acid residue of the EPOa moiety that serves as a site for glycosylation of the fusion protein is altered such that such a site does not serve as a site for glycosylation in the EPOa; and,

wherein both the albumin moiety and the EPOa moiety of the fusion protein is derived from a human sequence.

49. (New) The EPOa-hSA fusion protein of claim 48, wherein said fusion protein has the formula:

R1-L-R2; R2-L-Rl; orRl-L-R2-L-R1,

wherein R1 is an erythropoietin analog amino acid sequence; L is a peptide linker and R2 is a human serum albumin amino acid sequence.

50. (New) The EPOa-hSA fusion protein of claim 49, wherein R1 and R2 are covalently linked via said peptide linker.

51. (New) The EPOa-hSA fusion protein of claim 48, wherein each amino acid residue which serves as an attachment point for glycosylation has been deleted.

52. (New) The EPOa-hSA fusion protein of claim 48, wherein each amino acid residue of human EPO which serves as a site for glycosylation has been replaced with an amino acid residue which does not serve as a site for glycosylation.

53. (New) The EPOa-hSA fusion protein of claim 48, wherein said amino acid residue is selected from the group consisting of amino acid residues Asn24, Asn38, Asn83 and Ser126.

54. (New) The EPOa-hSA fusion protein of claim 48, wherein said glycosylation sites altered include Ser126, Asn24, Asn38 and Asn83.

55. (New) The EPOa-hSA fusion protein of claim 48, wherein said glycosylation sites altered are either O-linked or N-linked glycosylation sites and are altered by replacing an amino acid residue Asn or Ser with a Gln residue.

56. (New) The EPOa-hSA fusion protein of claim 48, wherein each of the amino acid residues 24, 38, 83 and 126 have been replaced with Gln.

57. (New) The EPOa-hSA fusion protein of claim 48, wherein each of the amino acid residues 24, 38, 83 and 126 have been deleted.

58. (New) The EPOa-hSA fusion protein of claim 57, wherein each of the amino acid residues 24, 38 and 83 have been replaced with Gln and wherein said amino acid residue 126 has been replaced with Ala.

59. (New) The EPOa-hSA fusion protein of claim 50, wherein said peptide linker is 10 to 30 amino acids in length.

60. (New) The EPOa-hSA fusion protein of claim 59, wherein each of said amino acids in said peptide linker is selected from the group consisting of Gly, Ser, Asn, Thr and Ala.

61. (New) The EPOa-hSA fusion protein of claim 50, wherein said peptide linker is composed of a sequence having the formula (Ser-Ser-Ser-Ser-Gly)y (SEQ ID 4) wherein y is less than or equal to 8.

62. (New) The EPOa-hSA fusion protein of claim 59, wherein said peptide linker is composed of either 2 or 3 tandem repeats of a sequence having the formula ((Ser-Ser-Ser-Ser-Gly)$_3$-Ser-Pro (SEQ ID 4).

63. (New) The EPOa-hSA fusion protein of claim 48, wherein the fusion protein includes from left to right, an EPOa which includes amino acid residues Gln24, Gln38, Gln83 and Alal26, a peptide linker, and human serum albumin.

64. (New) The EPOa-hSA fusion protein of claim 48, wherein the fusion protein is from left to right, Gln24, Gln38, Gln83, Ala126 EPO, a peptide linker having the formula $((Ser\text{-}Gly\text{-}Gly\text{-}Gly\text{-}Gly)_4\text{-}Ser\text{-}Pro)$ (SEQ ID 3) and human serum albumin.

65. (New) The EPOa-hSA fusion protein of claim 48, wherein the EPOa-hSA fusion protein includes, from left to right, human serum albumin, a peptide linker, and an EPOa which includes amino acid residues Gln24, Gln38, Gln83 and Ala126.

66. (New) The EPOa-hSA fusion protein of claim 65, wherein the EPOa is Gln24, Gln38, Gln83, Alal26 EPO.

67. (New) The EPOa-hSA fusion protein of claim 48, wherein the fusion protein is from left to right, human serum albumin, a peptide linker having the formula $((Ser\text{-}Gly\text{-}Gly\text{-}Gly\text{-}Gly)_4\text{-}Ser\text{-}Pro)$ (SEQ ID 3), and Gln24, Gln38, Gln83, Ala126 EPO.

68. (New) A pharmaceutical composition having a therapeutically effective amount of an EPOa-hSA fusion protein of claim 50.